WO 03/080608

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NOVEL COMPOUNDS

This invention relates to novel quinoline and aza indole compounds having pharmacological activity, processes for their preparation, to compositions containing them and to their use in the treatment of CNS and other disorders.

WO 98/27081 discloses a series of aryl sulphonamide compounds that are said to be 5-HT₆ receptor antagonists and which are claimed to be useful in the treatment of various CNS disorders. GB-2341549, WO 99/47516 and WO 99/65906 all disclose a series of 10 indole derivatives that are claimed to have 5-HT₆ receptor affinity. JP 02262627 (Japan Synthetic Rubber Co) describes a series of substituted quinoline derivatives useful as wavelength converting elements. WO 01/83456 (Yamanouchi Pharmaceutical Co. Ltd) describes a series of bicyclic or tricyclic fused heteroaryl compounds with phosphatidylinositol 3-kinase activity. WO 00/42026 (Novo Nordisk) describes a series of 15 quinoline and quinoxaline compounds for use as GLP-1 agonists. JP 08003144 (Chugai Pharmaceutical Co. Ltd.) describes a series of quinazoline and quinoline derivatives as potassium channel openers. WO 97/03069 (Glaxo Group Limited) and WO 96/09294 (The Wellcome Foundation Limited) both describe a series of substituted quinolines and quinazolines as protein tyrosine kinase inhibitors. 20

A structurally novel class of compounds has now been found which also possess affinity for the 5-HT₆ receptor. The present invention therefore provides, in a first aspect, a compound of formula (i) or a pharmaceutically acceptable salt thereof:

$$(R^2)_m$$
 $(CH_2)_p$
 $O = S = O$
 A
 (I)

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wherein

R¹ and R² independently represent hydrogen or C_{1.6} alkyl or R¹ is linked to R² to form a group (CH₂)₂, (CH₂)₃ or (CH₂)₄;

30 p represents 1 or 2;

> m represents an integer from 1 to 4, when m is an integer greater than 1, two R² groups may instead be linked to form a group CH₂, (CH₂)₂ or (CH₂)₃;

Q represents a group of formula (i), (ii), (iii) or (iv):